

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended): A cross polarized wave interference eliminating system comprising:

means, on a receiving side, comprising:

~~which includes~~ interference compensators which generate interference compensation signals for respectively compensating for cross polarized wave interference components of two orthogonal polarized waves components, for generating ~~generates~~ transmission power control information for each of the polarized waves, where the transmission power control information controls a transmission power of a transmitting side that is an opposite station of the receiving side, to individually improve an interference compensation characteristic for each of the polarized waves in accordance with an interference state, and ~~notifies afor~~ notifying the transmitting side of the information;; and

~~characterized by comprising~~ interference compensation amount adjusting means for, on the receiving side, adjusting an interference compensation amount of a self polarized wave on the basis of the transmission power control information for each of the polarized waves.

2. (currently amended): A cross polarized wave interference eliminating system according to claim 1, ~~characterized in that said wherein the~~ interference compensation amount adjusting means comprises a coefficient controller which generates and outputs, on the basis of the transmission power control information for each of the polarized waves, a weighting coefficient corresponding to a cross polarized wave interference amount which can occur in accordance with a reception level difference between the two polarized waves, and an interference compensator which filters a reception output on a different polarization side with a specific frequency component, and outputs a compensation signal having a level corresponding

to a weighting coefficient from said coefficient controller and a phase opposite to an interference component.

3. (currently amended): A cross polarized wave interference eliminating system according to claim 2, ~~characterized in that said~~wherein the interference compensator ~~includes~~comprises a transversal filter which filters a reception output on the different polarization side on the basis of a tap coefficient corresponding to a cross polarized wave interference amount, and a weighting circuit which adjusts a level of a compensation signal output from said transversal filter by increasing/decreasing a value of the tap coefficient in accordance with the weighting coefficient.

4. (currently amended): A cross polarized wave interference eliminating system according to claim 2, ~~characterized in that said~~wherein the interference compensator ~~includes~~comprises a filter which filters a reception output on the different polarization side with a specific frequency component, and a weighting circuit which adjusts a level of a compensation signal output from said filter by increasing/decreasing an output from said filter on the basis of the weighting coefficient.

5. (currently amended): A cross polarized wave interference eliminating method used in a cross polarized wave interference eliminating system comprising means, on a receiving side, ~~comprising which includes~~ interference compensators which generate interference compensation signals for respectively compensating for cross polarized wave interference components of two orthogonal polarized waves components, for generating~~generates~~ transmission power control information for each of the polarized waves, where the transmission power control information controls a transmission power of a transmitting side that is an opposite station of the receiving side, to individually improve an interference compensation characteristic for each of the polarized waves in accordance with an interference state, and ~~notifies afor notifying the~~ transmitting side of the information, ~~characterized by comprising the step of~~the method comprises;

on the reception side, adjusting an interference compensation amount of a self polarized wave on the basis of the transmission power control information for each of the polarized waves.

6. (currently amended): A cross polarized wave interference eliminating method according to claim 5, wherein the ~~step of adjusting further comprising the steps of~~comprises:

generating, on the basis of the transmission power control information for each of the polarized waves, a weighting coefficient corresponding to a cross polarized wave interference amount which may occur in accordance with a reception level difference between the two polarized waves;

filtering a reception output on a different polarization side with a specific frequency component;

and outputting a compensation signal having a level corresponding to the weighting coefficient and a phase opposite to an interference component.